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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/324,741	06/03/1999	ROBERT S. DELAND	9127-1E006US	1968

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EXAMINER

TREMBLAY, MARK STEPHEN

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 03/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/324,741

**Applicant(s)**

DELAND, ROBERT S.

**Examiner**

Mark Tremblay

**Art Unit**

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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Applicant: Deland

Filing date: 6/3/1999

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness  
5 rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in  
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are  
such that the subject matter as a whole would have been obvious at the time the invention was made to a person  
10 having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the  
manner in which the invention was made.

Claims 1-6 8-18 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S.  
Patent #5,546,462 to Indeck ("Indeck" hereinafter) in view of U.S. Patent #5,616,904 to  
Fernandez ("Fernandez" hereinafter). Indeck teaches an identification system for identifying  
15 documents bearing a magnetic stripe recorded 102 with digital data and having a repeatable  
magnetic characteristic, comprising:

a magnetic stripe sensor 100 for sensing the magnetic stripe to provide an analog signal  
representative of the recorded digital data and the repeatable magnetic characteristic;

a digitizer (see column 5, lines 42-44) for sampling the analog signal to provide digitized  
20 samples indicative of the repeatable magnetic characteristic;

a storage (see column 5, lines 42-44 and column 10, lines 54-68) for storing  
representations of the digitized samples as identification data to identify the document.

While Indeck suggests that ranges are acceptable because of inaccuracy in measurements  
of the magnetic fingerprint, and noise in the head and electronics, Indeck does not clearly disclose  
25 a waveform circuit for providing range data characteristic of the analog signal coupled with a  
storage to store the range data. Fernandez teaches a waveform circuit for providing range data  
characteristic of the analog signal and a storage to store the range data. It would have been  
obvious at the time the invention was made to a person having ordinary skill in the art to combine  
the technique of Indeck for determining the magnetic fingerprint based on the noise remnant of  
30 the permanent magnetic microstructure on the card with the technique of Fernandez for measuring  
the "jitter" of the magnetic analog signal in terms of ranges using a range circuit, and storing both

in a storage as a means of authenticating the data, because this would make the potential forger susceptible to two different techniques and two possible modes of exposure, decreasing the likelihood of forgery.

5 Re claim 2 and 8, both methods would apply to flat portions of the waveform. Indeck appears to apply anywhere. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to apply the combined techniques to a series of leading zeros, because the techniques are applicable to all numbers, and documents with a series of leading zeros are notoriously old and well known in the art. Leading zeros are a common fill technique, when the number is low but a set number of digits must be recorded.

10 Re claim 4, it is clear from both references that there is data used to fetch identification data from the storage.

Re claims 9-10, 14-15 see Fernadez.

15 Claims 7 is rejected under 35 U.S.C. § 103 as being unpatentable over Indeck as modified by Fernadez in view of U.S. Patent #5,920,628 to Indeck et al. (" '628 " hereinafter). Indeck as modified by Fernadez discloses the features of the invention as described above, but does not disclose a method for avoiding an on-line interception, wherein the fingerprint data is captured exactly. '628 discloses a method for avoiding on-line interception or "buffering" attacks wherein the authenticator rejects an exact match. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to avoid buffering attacks in the Indeck/Fernadez combined method by using the '628 method for avoiding on-line interception, and require a degree of dissimilarity to approve a transaction. Clearly, since Indeck describes averaging, a base-line must be established. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to store multiple readouts of the magnetic fingerprint to establish base-line variations that are acceptable in order to have a standard to reject a likely fraudulent exactness.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent #5,254,843 to Hynes is cited for showing another magnetic fingerprinting device.

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*Voice*

Inquiries for the Examiner should be directed to Mark Tremblay at (703) 305-5176. The Examiner's regular office hours are 10:30 am to 7:00 pm EST Monday to Friday. Voice mail is available. If Applicant has trouble contacting the Examiner, the Supervisory Patent Examiner, Michael Lee, can be reached on (703) 305-3503. Technical questions and comments concerning PTO procedures may be directed to the Patent Assistance Center hotline at 1-800-786-9199 or (703) 308-4357.

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**MARK TREMBLAY**  
**PRIMARY EXAMINER**

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March 25, 2002